

3/ptb

Description

5 Method for the dispatch of ordered articles

The invention concerns a method for the dispatch of ordered articles, in which different articles are ordered from a mail-order firm or online supplier, and
10 in which the order data and customer details, such as name and address, are saved in a database.

If a customer orders different goods from one or more online suppliers, then at present he receives
15 consignments from each manufacturer/supplier, i.e. he must be present to receive the goods on more than one occasion, and the transport costs are relatively high.

If appropriate goods are ordered from a conventional
20 mail-order firm, then unless they are sent out directly from the manufacturers to the customer, they are stored temporarily in a large warehouse. Either the goods are held in this warehouse temporarily in the quantities and product range required in order to enable goods to
25 be taken directly from there when orders are received, or goods for new orders are held there temporarily until all articles are present. The goods are then sent in a joint shipment to the customer. The latter temporary storage option does require less warehousing
30 space, but this can vary significantly from day to day, so that extra capacity must be kept in reserve. In addition, the full infrastructure also needs to be in place for this option.

The object of the invention stated in claim 1 is therefore to create a method for the dispatch of different articles that have been ordered, in which the necessary temporary storage capacities are reduced
5 compared with the prior art when a joint delivery is required.

The invention is based on the idea of co-ordinating the outward delivery times from the manufacturers/suppliers, and at the same time including the transport from the respective manufacturer/supplier to the dispatch service as a form of quasi-storage, such that a larger temporary warehouse is no longer needed in order to provide the customer with the ordered articles in a single delivery.

This is achieved by a common dispatch service being notified of the earliest possible outward delivery times for each of the manufacturers/suppliers, this information being saved there in a database together with the order data and customer details, such as name, address. Then the latest arrival time of articles at the dispatch center of the dispatch service is determined for this order, which is calculated by adding the respective transport times onto the associated earliest possible delivery times from the manufacturers/suppliers. The earliest possible delivery time to the customer is then calculated by adding the transport time from the dispatch center to the customer onto the latest arrival time at the dispatch center, and then adding onto this a handling time at the dispatch service.

After that, each manufacturer/supplier for the order
35 concerned is notified by the dispatch service of the

outward delivery time to be achieved. This is obtained
 from the latest arrival time at the dispatch center
 minus the respective transport time from the
 manufacturer/supplier to the dispatch center. Finally,
 5 the ordered articles are sent out to the dispatch
 service at the notified times, and then forwarded
 jointly from the dispatch center to the customer.

Advantageous embodiments of the invention are presented
 10 in the sub-claims.

In order to avoid the customer being absent when the
 articles are delivered, it is advantageous to agree the
 delivery date with him. To this end, the earliest
 15 possible delivery time to the customer is determined by
 adding the transport time between the dispatch center
 and the customer onto the latest arrival time and then
 adding onto this a handling time at the dispatch
 center. Then at least one delivery time is proposed to
 20 the customer. Once the confirmed delivery time has been
 received from the customer, the outward delivery times
 to be achieved by the manufacturers/suppliers are
 postponed, on the basis of the earliest possible
 delivery time to the customer, by the time difference
 25 between the confirmed and the earliest possible
 delivery time.

In an advantageous embodiment, the dispatch service is
 notified of the transport times between the
 30 manufacturers/suppliers and the dispatch center,
 together with the earliest possible outward delivery
 times, and the information saved in the database.

In a further advantageous embodiment for determining
 35 the current transport times between manufacturers/

suppliers and dispatch center, these times are calculated, saved and statistically analyzed on a continuous basis.

5 It is advantageous for the customer if he is directed to several sub-online suppliers via just one online supplier, which co-ordinates the dispatch at the same time.

10 In order to avoid excessive delivery delays, the earliest outward delivery times of the articles from the manufacturers/suppliers are advantageously compared with each other. Where a set time difference is exceeded, the articles are not delivered together to
15 the customer.

In a further advantageous embodiment, the sizes and characteristics of the articles are also saved in the database at the dispatch service, and can be used if
20 required to check whether the articles can be sent in one parcel. If several manufacturers/suppliers are available for a specific article, then it is advantageous to select these on the basis of the shortest possible transport distances to the customer
25 and/or the earliest possible outward delivery times.

It is also advantageous if the customer can select the dispatch service.

30 The invention is explained in more detail below in a practical example with reference to the drawing, in which:

FIG 1 shows a block diagram of the order
35 process

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FIG 2 shows a block diagram of the determination of the agreed delivery date to the customer

FIG 3 shows a block diagram of the information flow during the delivery process

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As shown in FIG 1, the customer 1 places an order over the Internet with an online supplier 2 for shoes, books and music CDs on 03.12.2000. The online supplier forwards this order to relevant manufacturers/suppliers 5. In addition, the customer 1 has chosen to receive the articles in a joint delivery. The dashed arrow indicates that the customer 1 can also order the goods directly from the manufacturers/suppliers 5, in this case over the Internet, as suggested by the names shoes.com, books.com and music.com. The manufacturers/suppliers 5 then determine their earliest possible delivery date and pass this information on to the dispatch center 3 of the online supplier 2 or of the selected dispatch service, where the data is saved in a database 4 together with the order data and customer details, such as name and address.

The transport times from the manufacturers/suppliers 5 to the dispatch center 3 are also saved with this data. The transport times may be notified by the manufacturers/suppliers 5, as shown, or this information is already saved in the database 4. The continuous arrow indicates that the dispatch service or dispatch center 3 belongs to the mail-order firm/online supplier 2, and receives the information via there, while the dashed arrow indicates that the dispatch service is independent and obtains the information directly from the manufacturers/suppliers 5. The latest of the earliest possible arrival times at the dispatch

enter 3 of the dispatch service (07.12.00) is
 determined from the earliest possible delivery dates
 plus the respective transport times to the dispatch
 center 3 (shoes.com: 04.12.00 plus 1 day; books.com:
 5 05.12.00 plus 1 day; music.com: 04.12.00 plus 3 days).
 If one then adds the transport time to the customer 1
 (1 day) and a handling time (0 days in this case) at
 the dispatch service, then one obtains the earliest
 delivery time to the customer 1 (08.12.00). It is
 10 advantageous to agree this date with the customer 1, so
 that he can actually receive the consignment. If this
 is done, then the joint arrival date of the ordered
 articles at the dispatch center 3 (07.12.00) is
 determined by starting with the agreed date (the
 15 proposed date of 08.12.00 was confirmed) and
 subtracting the handling time and the transport time
 between customer 1 and dispatch center 3. As shown in
 FIG 3, the respective transport times to the
 manufacturers/suppliers 5 are then deducted in order to
 20 determine the adjusted outward delivery times
 (Shoes.com: 06.12.00; books.com: 06.12.00; music.com:
 04.12.00) that will guarantee arrival at the dispatch
 center 3 on the same date. The manufacturers/suppliers
 5 are then notified of these outward delivery times, so
 25 that when these outward delivery times are achieved,
 temporary storage is no longer required to complete the
 consignment for the customer. The dashed arrow
 indicates that the data can also be transferred
 separately to independent manufacturers/suppliers. It
 30 is convenient if a single online supplier 2 linked to
 further online suppliers/manufacturers 5 co-ordinates
 the dispatch. In order to avoid delivery times to the
 customer that are too late, the earliest possible
 outward delivery times for the manufacturers/suppliers
 35 5 are compared. Where a set time difference is

